THE NECESSITY OF A SHIP-CANAL BETWEEN THE EAST AND THE WEST.

REPORT

OF THE

COMMITTEE ON STATISTICS,

FOR THE CITY OF CHICAGO,

SUBMITTED TO THE

NATIONAL CONVENTION,

ASSEMBLED

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NECESSITY OF A SHIP-CANAL BETWEEN THE EAST AND WEST.

"The Congress shall have power to levy taxes, duties, imposts and excises—to provide for the COMMON DEFENSE, and promote the GENERAL WELFARE of the United States."—CONSTITUTION.

The Committee, appointed to collect statistics as to the importance of uniting the waters of the Mississippi with those of the Atlantic by a Ship-Canal, have discharged the duties imposed upon them, and submit the following

REPORT.

Two schemes for the accomplishment of this object have been brought prominently before the country, and failed, only by a few votes, to receive the sanction of the Thirty-Seventh Congress.

1. To make a slack-water navigation of the Illinois and Des Plaines rivers, and to enlarge the present Illinois and Michigan canal to such dimensions as shall admit of the passage of gun-boats, and of the largest class of Mississippi steamers, to the Lakes.

2. To enlarge the locks of the Erie and Oswego canals of New York, to such dimensions as shall pass an iron-clad gun-boat 25 feet wide and 200 feet long, and drawing not less than 6 feet and 6 inches water.

The cost of construction of the first will be about $13,500,000, and that of the second, $3,500,000;—detailed estimates of which will be presented to the Convention.

In devising an extensive system of internal communication, it is of the highest importance to inquire into the resources of the region which it shall traverse; its topography, soil and climate; its population, products of industry and internal commerce; and its past and prospective growth;—all are elements to be taken into consideration to enable us to form an intelligible opinion as to the necessity of executing such works, and the scale of magnitude on which they should be projected.

PHYSICAL CHARACTER OF THE MISSISSIPPI BASIN.

The Valley of the Mississippi, bounded on the one hand by the Rocky mountains, and on the other by the Alleghanies, embraces a drainage area of 1,244,000 square miles, which is more than one-half of the entire area of the United States. The Upper Mississippi Valley is composed of three subordinate basins, whose respective dimensions are as follows:

The Ohio basin	214,000	square miles.
The Upper Mississippi	169,000	" "
The Missouri	518,000	" "
Making a total of	901,000	" "

Its navigable rivers are as follows:

Missouri, to near the Great Falls	3,150	miles.
Missouri, above Great Falls to Three Forks	150	"
Osage, to Osceola	200	"
Kansas	100	"
Big Sioux	75	"
Yellow-stone	800	"
Upper Mississippi, to St. Paul	658	"
St. Anthony, to Sauk Rapids	80	"
Above Little Falls, to Pokegima Falls	250	"
Minnesota, to Patterson's Rapids	295	"
St. Croix, to St. Croix Falls	60	"
Illinois, to La Salle	220	"
Ohio, to Pittsburgh	975	"
Monongahela, to Geneva (slack-water, 4 locks,)	91	"
Muskingum, to Dresden " 8 "	100	"
Green River, to Bowling Green " 5 "	186	"
Kentucky, to Brooklyn " 5 "	117	"
Kanawha, to Gauley Bridge	100	"
Wabash, to Lafayette	335	"
Salt, to Shepherdsville	30	"
Sandy, to Louisa	25	"
Tennessee, to Muscle Shoals	600	"
Cumberland, to Burkesville	370	"
Total navigation	8,967	"

NOTE.—Steamboats have ascended the Des Moines to Des Moines City, Iowa river to Iowa City, Cedar river to Cedar Rapids, and the Maquoketa to Maquoketa City, but only during temporary floods.

It would thus appear that the internal navigation of the Upper Mississippi Valley is about 9,000 miles in extent; but, during

the summer months, even through the main channels, it becomes precarious, and at times is practically suspended.

The Mississippi Valley, viewed as a whole, may be regarded as one great plain between two diverging coast ranges, elevated from 400 to 800 feet above the sea. St. Paul, the head of the navigation of the Mississippi, is 800 feet above the ocean; Pittsburgh, at the junction of the Monongahela and Alleghany, forming the Ohio, 699 feet; Lake Superior on the north, 627 feet; but the water-shed on the west, at South Pass, rises to nearly 7,500 feet.

It is traversed by no mountain ranges, but the surface swells into hills and ridges, and is diversified by forest and prairie. Leaving out the sterile portions west of the Missouri, the soil is almost uniformly fertile, easily cultivated, and yields an abundant return. The climate is healthy and invigorating, and altogether the region is the most attractive for immigration of any portion of the earth.

PHYSICAL CHARACTER OF THE ST. LAWRENCE.

The sources of the Mississippi on the east interlock with those of the St. Lawrence, which, with its associated lakes and rivers, presents a system of water-communication of nearly equal extent and grandeur.

TABLE SHOWING THE DIMENSIONS OF THE FIVE GREAT AMERICAN LAKES.

LAKES.	Greatest length.	Greatest breadth.	Height above sea.	Area in square miles.
	MILES.	MILES.	FEET.	
Superior	355	160	627	32,000
Michigan	320	100	578	22,000
Huron	260	160	578	20,400
Erie	240	80	565	9,600
Ontario	180	35	232	6,300
TOTAL	1355	....	....	90,300

The entire area drained by these lakes is estimated at 335,515 square miles, and their shore lines are nearly 5,000 miles in extent, while those of the Atlantic are but 3,500.

These rivers are as diverse in character as in direction. The

Mississippi is the longer, but the St. Lawrence discharges the greater volume of water; the one abounds in difficult rapids, the other in stupendous cataracts; the one is subject to great fluctuations, the other preserves an almost unvarying level; the waters of the one are turbid, those of the other possess an almost crystal purity; the one affords few lake-like expansions, the other swells into vast inland seas. Both have become the great highways of commerce, enriching the regions through which they flow, and supplying the inhabitants with the varied products of distant climes. (*Foster and Whitney's Report on Lake Superior.*)

The commerce of these lakes, whose annual value reaches $450,000,000—more than twice the external commerce of the whole country—is carried on by a fleet of 1,643 vessels, of the following classes:—

	No.	Tonnage.	Value.
Steamers	143	53,522	$2,190,300
Propellers	254	70,253	3,573,300
Barks	74	33,203	982,900
Brigs	85	24,831	526,200
Schooners	1,068	227,831	5,955,550
Sloops	16	667	12,770
Barges	3	3,719	17,000
TOTALS	1,643	413,026	$13,257,020

The following are the distances of some of the commercial routes, taking Chicago as the initial point:

Chicago to Fond du Lac Superior	900 miles.
" " Georgian Bay	650 "
" " Buffalo	950 "
" " Gulf of St. Lawrence	1,950 "

PROGRESS OF DEVELOPMENT.

The first colony of English extraction, planted in the territory of the Upper Mississippi, was in 1788—just seventy-five years ago—at Marietta, within the present limits of Ohio. This was the origin of that spirit of colonization, which, within the lifetime of many living men, has peopled this region with nine millions of human beings; has subdued and brought under cultivation, an area greater than that of all the cultivated lands of the British Empire; has connected the principal commercial points with a net-work of railways more than eleven thousand miles in extent; and has built up a domestic industry, the value of whose annual

product is in excess of three hundred and fifty millions of dollars. Out of this territory have been carved not less than nine States, which are indissolubly linked together by a similarity of conditions in soil and climate, and by the geographical features of the country. They have already received the appellation of the "FOOD-PRODUCING" States—an appellation which they are destined to retain for all time.

The rivers and the lakes, which water this region, offer the most magnificent system of internal communication to be found on the surface of the earth. No mountain barriers interpose to divide the people into hostile clans, or divert the great currents of trade in their flow to the markets of the world. With a soil sufficiently rich in organic matter for fifty successive crops; with almost boundless fields of coal, stored away for future use; with vast deposits of the useful ores, and the precious metals, on the rim of the great basin; and with a climate most favorable to the development of human energy, it is impossible for the mind, even in its most daring speculations, to assign limits to the growth of the North-West. When all of these elements of wealth, now in a crude state, shall have been fully developed, there will be an exhibition of human power and greatness such as no other people ever attained.

The subjoined table (A.), compiled from the Census returns of the United States, exhibits the progress of population, as well as of cultivation in these States, from 1800 to 1860; and it will be perceived that, during this period, in both these respects, the increase has been each decade about two-fold.

The appended table (B.), also compiled from the Census returns, shows that the increase in agricultural products and in domestic animals has been in about the same proportions. Comparing the whole superficial contents of these States with the portions cultivated, it will be seen that only about 15½ per cent. of the surface has been subdued; and, if population and cultivation increase in the same ratio in the future as they have in the past, before the lapse of another decade there will be collected annually, on the borders of the Great Lakes, more than 200,000,000 bushels of cereals for exportation, giving employment to a fleet of more than 3,000 vessels, and requiring avenues of more than twice the capacity of existing ones.

[A.]

TABLE, SHOWING THE INCREASE OF POPULATION, AND OF THE NUMBER OF ACRES OF IMPROVED LAND IN THE STATES NORTH WEST OF THE OHIO RIVER, AND THE UPPER MISSISSIPPI BASIN, FROM 1800 TO 1860.

STATES.	Area of Square Miles.	1800.		1810.		1820.		1830.		1840.		1850.		1860.	
		Population.	Improved Land.	Population.	Improved Land.	Population.	Improved Land.	Population.	Improved Land.	Population.	Improved Land.	Population.	Improved Land.	Population.	Improved Land.
Ohio.....	39,964	45,365	225,675	230,760	225,675	581,295	2,892,456	937,903	4,665,000	1,519,467	7,558,750	1,980,329	9,851,493	2,339,511	12,665,587
Michigan..	56,243	.....	.....	4,762	.....	8,765	.....	31,639	.....	212,267	.....	397,654	1,929,110	749,113	3,419,861
Indiana....	33,809	4,875	24,890	24,520	125,530	147,178	751,445	343,031	1,751,409	685,866	3,485,729	988,416	5,046,543	1,350,428	8,161,717
Illinois.....	55,405	.....	.....	12,282	72,692	55,162	325,272	157,445	931,860	476,183	2,818,373	851,470	5,039,545	1,711,951	13,251,473
Missouri...	67,380	.....	.....	20,845	89,805	66,557	286,870	140,455	605,117	383,702	1,658,001	682,044	2,938,425	1,182,012	6,246,871
Iowa.....	55,045	.....	.....	.....	.....	.....	.....	.....	.....	43,112	184,969	192,214	824,682	674,918	3,780,258
Wisconsin..	53,924	.....	.....	.....	.....	.....	.....	.....	.....	30,945	105,930	305,391	1,045,499	775,881	3,746,036
Minnesota..	83,531	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,077	5,035	172,123	554,897
Kansas....	80,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	107,206	372,855
TOTALS...	525,301	50,240	250,565	293,169	513,702	858,957	4,256,043	1,610,473	7,953,386	3,350,542	15,806,752	5,403,595	26,680,332	9,063,143	52,199,050

[B.

STATEMENT, SHOWING THE INCREASE IN SOME OF THE PRODUCTS OF AGRICULTURE IN THE EIGHT GRAIN-GROWING STATES FOR TEN YEARS, ENDING IN 1860.

STATES.	Wheat, bushels.		Corn, bushels.		Oats, bushels.		Rye, bushels.		Barley, bushels.		Swine, head.		Cattle, head.	
	1850	1860	1850	1860	1850	1860	1850	1860	1850	1860	1850	1860	1850	1860
Ohio	14,487,351	14,532,570	59,078,695	70,637,140	13,472,742	15,479,133	425,918	656,146	354,358	1,601,082	1,964,770	2,175,623	1,358,947	1,657,850
Indiana ...	6,214,458	15,219,120	52,964,363	69,641.591	5,655,014	5,028,755	78,792	400,226	45,483	296,374	2,263,776	2,498,528	714,666	1,170,005
Illinois	9,414,575	24,159,500	57,646,984	115,296,779	10,087,241	15,336,072	83,364	961,322	110,795	1,175,651	1,915,907	2,279,722	912,036	1,505,581
Michigan ..	4 925,889	8,313,185	5,641,420	12,152,110	2,866,056	4,073,098	105,871	497,197	75,249	305,914	205,847	374,664	274,497	534,267
Wisconsin .	4,286,131	15,812,625	1,988,979	7,565,290	3,414,672	11,059,270	81,253	888,534	209,692	678,992	159,276	333,957	183,433	512,866
Minnesota.	1,401	2,195,812	16,725	2,987,570	30,582	2,202,050	125	124,259	1,216	125,130	734	101,252	2,002	119,008
Iowa	1,530,581	8,433,205	8,656,799	41,116,994	1,524,345	5,879,653	19,916	176,055	25,093	454,116	323,247	921,161	136,621	536,254
Missouri...	2,981,652	4,227,586	36,214,537	72,892,157	5,278,079	3,680,870	44,268	293,262	9,631	228,502	1,702,625	2,354,425	791,510	1,168,984
Totals..	43,842,038	89,293,603	222,208,502	392,289,631	42,328,731	62,738,901	739,507	3,997,001	831,517	4,865,761	8,536,182	11,039,332	4,373,712	7,204,310

Here is a gross sum of more than 550,000,000 bushels of cereals, the product of the eight Food-producing States for the year 1859, based on a crop which was nearly one-third deficient, as contrasted with those of 1860 and 1861.

To convey an adequate idea of the motive power required to distribute this prodigious mass, in its crude state, it may be stated that it would employ more than 64,400 locomotives, each hauling 8,500 bushels; and, if required to deposit their freight at a given depot, a train must arrive oftener than once in seven minutes, by day and by night, throughout every working day of the year.

After feeding the existing population of those States, there remains a surplus of more than 500,000,000 of bushels, to be used as seed for future crops, as food for the domestic animals, and for exportation, either in a crude state, or in a concentrated form, as beef, pork, lard, oil, whisky, etc., etc.

As an evidence of the increase of agricultural products since 1859, consequent on improved crops, and an enlarged area of cultivation, your Committee would direct attention to the provision-trade of Chicago for the last four years.

TABLE, SHOWING THE RECEIPTS AT CHICAGO OF THE ARTICLES NAMED FOR THE YEARS 1859–62.

ARTICLES.	1859.	1860.	1861.	1862.
Flour, barrels.....	726,321	713,348	1,479,284	1,666,391
Wheat, bushels.....	8,060,766	14,427,083	17,385,602	13,978,116
Corn, "	5,401,870	15,262,394	26,369,989	29,574,328
Oats, "	1,757,696	2,198,889	2,067,018	4,688,722
Rye, "	231,514	318,976	490,989	1,038,825
Barley, "	652,696	617,619	457,589	872,053
Hogs	271,204	392,864	675,902	1,348,890
Cattle	111,694	177,101	204,579	209,655

Thus, the increase in cereals has been 196 per cent.; in hogs, 400 per cent.; and in cattle, 87 per cent.

Results equally marked are shown by the returns of the other lake-ports.

BLOCKADE OF THE MISSISSIPPI.

It may be said that this is the result of the blockade of the Mississippi, and that, so soon as that blockade is raised, a considerable portion of these products will seek an outlet through that channel. This is a mistaken idea, which a brief reference to the statistics of trade will entirely dispel.

The committee of the Chicago Board of Trade, in a recent report, say:

"In the early settlement of the West, the Mississippi was the only outlet for the products of the country; but the opening of the New York and Canadian canals, and of not less than five trunk railways between the East and West, has rendered the free navigation of the Mississippi a matter of secondary importance.

"The heated waters of a tropical sea, destructive to most of our articles of export, a malarious climate, shunned by every Northerner for at least one-half of the year, and a detour in the voyage of over 3,000 miles in a direct line to the markets of the world,—these considerations have been sufficiently powerful to divert the great flow of animal and vegetable food from the South to the East. Up to 1860, the West found a local market for an inconsiderable portion of her bread-stuffs and provisions in the South; but, after supplying this local demand, the amount which was exported from New Orleans was insignificant, hardly exceeding two millions of dollars per annum."

The annual report of the Secretary of the Treasury, for the year ending August 31, 1860, shows the amount of bread-stuffs and provisions exported to foreign countries from New Orleans and New York respectively, as follows:

	From New Orleans.	From New York.
Wheat, bushels	2,189	1,880,908
Wheat Flour, barrels	80,541	1,187,200
Indian Corn, bushels	224,382	1,580,014
Indian Meal, barrels	158	86,073
Pork, barrels	4,250	109,379
Hams and Bacon, pounds	890,230	16,161,749

The total receipts of grain of all kinds, at that port, in no single year exceeded 14,500,000 bushels, either for exportation or consumption in the interior, which are about the receipts at Milwaukee, or Toledo. In 1859–60, the receipts were as follows:

FLOUR. bbls.	WHEAT. sacks and bbls.	CORN. sacks and bbls.	OATS. sacks and bbls.
965,860	839,348	1,722,637	659,550

These facts show conclusively that, with the navigation of the Mississippi unobstructed, the great mass of Western exports would flow through other channels.

PRODUCT OF BREAD-STUFFS FOR EXPORTATION.

The amount of cereals, which, in 1862, flowed out of the Upper Mississippi Valley and the region of the Lakes, *en route* for the sea-board, was, according to the Buffalo Trade Report, 136,329,542 bushels, which were respectively forwarded from the following points:

STATEMENT SHOWING THE SHIPMENT OF CEREALS FOR 1862.

PLACES.	FLOUR. BBLS.	WHEAT. BUSH.	CORN. BUSH.	OTHER GRAIN. BUSH.
W. Terminus B. & O. R. R.*	690,000	.....	.....	550,000
" Pennsylvania Central	890,696	.....	.....	1,622,893
Dunkirk	1,095,865	112,061	149,654	10,173
Suspension Bridge*	875,000	.....	.....	2,750,000
Buffalo	2,846,022	30,435,831	24,288,627	3,849,620
Oswego	235,382	10,982,132	4,528,962	1,467,823
Cape Vincent	48,578	316,403	249,369	49,047
Ogdensburg	576,394	689,930	1,120,176	18,865
Montreal	1,101,475	8,012,773	2,649,136	519,896
Rochester*	1,000	150,000	.....	6,622
* Estimated.				
TOTALS	8,359,910	50,699,130	32,985,923	10,814,939
GRAND TOTAL, (Flour reduced to bushels)				136,329,542

SHIPMENTS OF CEREALS FROM FOUR LAKE PORTS, IN 1862.

PLACES.	FLOUR. BBLS.	WHEAT. BUSH.	CORN. BUSH	OTHER GRAIN. BUSH.
Chicago	1,739,849	13,808,898	29,452,610	4,516,357
Milwaukee	711,405	14,915,680	9,489	250,292
Toledo*	1,261,291	9,314,491	3,781,634	.....
Detroit†	998,535	3,278,033	310,618	122,109
TOTALS	4,711,080	41,317,102	33,554,351	4,888,758
GRAND TOTAL, (Flour reduced to bushels)				103,315,611

* Amount received from Chicago deducted.
† Amount received from Chicago and Milwaukee deducted.

The mining population of Lake Superior absorb not less than 150,000 bushels of cereals, which do not appear in the above tables, and which will account for the discrepancies between the amounts shipped from the initial points, and the amounts forwarded from the secondary points. These tables are illustrative, as showing that, in this great grain-movement, the four lake ports furnish more than fifty per cent. of all the flour, more than eighty per cent. of all the wheat, and more than seventy-five per cent. of the cereals of all kinds; while Chicago and Toledo together furnish more corn than finds its way eastward through all these avenues, and Chicago alone contributes more than forty per cent. of the whole gross product.

These statistics show to what gigantic proportions the grain-trade of the North-West—the growth of less than a quarter of a century—has attained. The first shipment of grain from Chicago was made by one of this Committee in 1838; but the earliest bill of lading preserved bears date Oct. 8, 1839, and calls for 1,678 bushels of wheat, to be delivered at Black Rock.

PROVISION TRADE.

The provision trade has assumed dimensions equally important. The following returns of the pork-packing in the North-West are taken from the Cincinnati Price Current, showing the number of hogs slaughtered, as well as forwarded:

	1861-2.	1862-3.
Ohio	791,099	981,683
Indiana	495,298	587,528
Illinois	835,881	1,484,834
Iowa	205,188	403,899
Missouri	158,766	284,011
Wisconsin	100,556	196,745
TOTALS	2,566,788	3,938,700
Excess over preceding year		371,912
Aggregate weight in lbs.	606,788,684	854,697,900

The number of hogs forwarded by the

	1861-2.	1862-3.
New York and Erie Railroad	124,792	136,007
Pennsylvania Railroad	205,103	171,490
	329,875	307,503

No returns of the number sent through Canada, or delivered at Buffalo, have as yet been received.

The Committee have not complete returns of the extent of beef-packing in the North-West. The shipments of cattle through one avenue alone—Detroit—amounted last year to 75,964.

CORN CROP.

But the great crop of the North-West is that of maize, or Indian corn, the yearly product of which is now not less than 500,000,000 bushels. It is easily cultivated, and yields an almost unfailing return. It is the cheapest food for domestic animals, and in a concentrated form, like beef, pork, lard, alcohol, and whisky, will bear transportation to every quarter of the world. In a crude

state, it is a commodity so bulky and perishable that, loaded with the existing rates of transportation, the prairie farmer often finds it more profitable to consume it for fuel than to ship it to the sea-board. That which is retailed to the New England operative at 60 cents per bushel, nets to him less than 9 cents—the difference being used up in freights and commissions. The consequence is, that only about five per cent. of this cereal, in its crude state, reaches the sea-board.

Estimating the future by the past, it is impossible to assign limits to the productive power of the North-West. That power will keep pace with the world's demand for cheap bread—a demand always craving but never satisfied. Hostile legislation may undertake to confine its passage to particular channels, and interested parties to levy extortionate charges on its transit; but the reciprocal interest of producer and consumer will be sufficiently powerful to sweep away all such obstacles. The universal sentiment of mankind, as well as the dictates of a sound political economy, demands that products of such vital necessity to the race shall be incumbered with the least possible restraints.

MINERAL RESOURCES — LAKE SUPERIOR MINING REGION.

Prior to 1845, Lake Superior was regarded almost as a *mare clausum;*—one or two vessels in the employment of the British and American Fur Companies being the only ones whose canvas whitened those magnificent waters. The trade of that region, now estimated at $22,000,000 per annum, requires about 200 vessels for its transaction.

The copper-mining of this region has become one of the great industrial interests of the country, giving employment to probably 10,000 miners, and yielding an annual product which goes far to supply the wants for home consumption. The native metal—for under this form it is almost exclusively found—yields a copper-sheathing, which, for purity and tenacity, is far superior to any foreign product.

The cupriferous belt extends, on the southern shore of that lake, from the head of Keweenaw Point to beyond the Ontonagon—the productive portion being about 100 miles in length, and from 2 to 10 miles in width.

The following statement shows the annual yield in tons (2,240 lbs.) of the mines, from the commencement of mining operations up to the present year:

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AGGREGATE SHIPMENTS OF COPPER FROM LAKE SUPERIOR, FROM 1845 TO 1862.

	Tons.	lbs.	Value.
Shipments in 1845		1300	$290
" 1846	29.		2,619
" 1847	239.		107,550
" 1848	516.		206,400
" 1849	750.		301,200
" 1850	640.		266,000
" 1851	872.		348,800
" 1852	887.		300,450
" 1853	1,452.		508,200
" 1854	2,300.		805,000
" 1855	3,196.		1,427,000
" 1856	5,726.		2,400,100
" 1857	5,759.		2,015,650
" 1858	5,896.		1,610,000
" 1859	6,041.		1,932,000
" 1860	8,614.		2,520,000
" 1861	10,337.		3,180,000
" 1862	10,000.		4,000,000

IRON ORES.

The ores occur in mountain masses, sufficient to furnish an unlimited quantity of the purest iron for all time. They occupy a belt from six to twenty-five miles wide, and extend from about the parallel of Chocolate river 150 miles west, into Wisconsin. The nearest point at which these ores approach Lake Superior is south of Marquette, distant twelve miles. A railroad has been constructed sixteen miles in length, so as to intersect three of these great deposits, and the amount of ore brought down each year is largely on the increase, as is shown in the following returns from the *Marquette Journal*, of January 16, 1863:

THE IRON PRODUCT OF THE LAKE SUPERIOR—SHIPMENTS OF IRON ORE.

Year.	Jackson Iron Company.	Cleveland Iron Company.	Lake Superior Iron Company.	Total Gross tons.
1855	.....	1,447	.....	1,447
1856	4,497	7,100	.....	11,597
1857	13,912	12,272	.....	26,184
1858	11,104	19,931	.....	31,035
1859	10,662	30,344	24,668	65,679
1860	41,286	42,696	33,016	116,998
1861	12,919	7,311	25,200	45,430
1862	42,767	35,244	37,710	115,721
Total amount shipped to date				414,091

These ores are the peroxide, or specular variety, often nearly chemically pure, but generally contain a small quantity of silicious matter. There is hardly a trace of sulphur, phosphorus, or titanic acid, and the product is a fine, tough, fibrous iron. No mining is required, for the ores lying in great knobs, or ledges, are worked in an open quarry. These ores are in great demand in western Pennsylvania and northern Ohio, where they are mixed with the carbonates of the Coal Measures, by which combination the quality of the iron is vastly improved.

There is no portion of the North-West which will be more benefited by an ample water-communication, than the Iron Region of Lake Superior. With cheap freights, these ores can be sent to the sea-board, or wherever cheap fuel obtains. As they yield over 50 per cent. of pure iron in the working, they will bear a long transportation. A railway is about to be constructed, uniting the head of Bay du Noquet of Lake Michigan, with the mouth of Chocolate river of Lake Superior, the distance being 46⅔ miles. This is an important link in internal communication; first, as affording an additional outlet for these ores; second, as shortening the voyage to Lake Superior five or six days, and avoiding the difficult navigation of the St. Mary's river; third, as protracting the water-communication each season with that region at least six weeks; and fourth, as enabling us to preserve an uninterrupted intercourse with that region, in the event of a war with Great Britain.

SALT-BASIN OF MICHIGAN.

Within the last few years a valuable salt-basin has been developed in the region of Saginaw Valley, in the Lower Peninsula of Michigan, which is estimated to be 17,000 square miles in extent. The product in 1862 had reached 1,270,000 bushels—the result of twenty-two wells—and the number has now reached about one hundred, whose product for the present year is estimated at 4,000,000 bushels, which will find its principal market in the Western States. The product of the Onondaga Salt Springs, which last year reached 9,054,000 bushels, has heretofore been largely absorbed by the North-West, having been used in Nashville and even Leavenworth; while not less than 1,360,000 bushels were shipped to Chicago and Milwaukee.

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GOLD DEPOSITS OF THE ROCKY MOUNTAINS.

Recent geological explorations would seem to indicate that the Rocky mountains are auriferous throughout their entire range in the United States, from Mexico on the south, to the British Possessions on the north, extending from latitude 31° 30′ south, to 49° north, and from longitude 102° to the Pacific coast, embracing portions of Dakota, Nebraska, Colorado, all of New Mexico, with Arizona, Utah, Nevada, California, Oregon, and Washington Territories. The region comprises, according to the Commissioner of the General Land Office, seventeen degrees of latitude, or a breadth of 1,100 miles, from north to south, and is of nearly equal longitudinal extension, making an area of more than 1,000,000 square miles. It is traversed from north to south, first on the Pacific side by the Sierra Nevada and the Cascade mountains, then by the Blue and Humboldt mountains, Wasatch, the Wind River chain, and the Sierra Madre, stretching longitudinally and in lateral spurs, crossed and linked together by intervening ridges.

In addition to gold, Nevada and New Mexico are rich in silver.

In the Salmon river district, the yield of gold for the present year is estimated at $20,000,000; while the whole yield of the region is estimated by the Commissioner at $100,000,000.

These figures seem startling, when it is considered that, prior to the discovery of the California mines, the annual gold-product of the world was estimated at only $18,000,000.

This region is rapidly filling up with adventurers, who are to be fed and clothed, and supplied with all the comforts and conveniences of civilized life. They must be bound to the parent States not simply by the ties of early association, but by those of interest. In all mining enterprises, collossal machinery is required; the steam-engine must be employed to pump, to lift, to crush, to wash, and to perform a vast variety of processes which human hands could hardly accomplish. It was politic to extend to this region a Pacific railway; it will be politic to afford to its inhabitants, as far as practicable, a cheap water-communication. It is a matter of deep interest to them whether their supplies, for two-thirds of the distance, are moved by rail or by water.

These are the elements of a commerce, which, although in its infancy, has already assumed gigantic proportions, and is clamoring for additional outlets.

COST OF TRANSPORTATION.

This subject has been elaborately investigated by McAlpine, while State Engineer of New York, with the following results:

	Mills per ton per mile.
Ocean, long voyage	1½
" short "	2 to 6
Lakes, long "	2
" short "	3 to 4
Hudson river	2½
Mississippi and St. Lawrence	3
Erie Canal, enlarged	4
Ordinary canals	5
Railroads, ordinary grades	12½ to 13⅓

Assuming these rates as being substantially correct, it will be seen that the relative cost of transportation by rail, as compared with the other modes of conveyance, is as follows:

		Per Cent. greater.
By Rail, over	Ocean Transportation	733.3
" "	Great Lakes "	525.0
" "	Mississippi and St. Lawrence Transportation	316.6
" "	Hudson "	400.0
" "	Illinois Improvement "	257.1
" "	Erie canal enlarged "	215.0
" "	Ordinary canal "	150.0

These are the elements, from which any one interested in this subject, can compute the practical effects upon the productive industry of the country, and the enlarged area it will give to cultivation,—the result of increased avenues of communication between the Mississippi and the sea-board. The producer will have new motives to multiply his crops, while to the consumer will be held out the prospect of cheap bread. Viewed in its true light, the Railroad interest can interpose no valid objection. With industry active and remunerative, travel will increase, as well as the consumption of those articles which require a rapid transit, and for which this mode of conveyance is specially adapted. The resources developed along the lines of communication will more than compensate for any loss of through traffic, and the equilibrium between out-going and returning freights become far more constant than it now is.

STATEMENT SHOWING THE RATES OF TRANSPORTATION BETWEEN THE MISSISSIPPI RIVER AND NEW YORK FOR 1862; ALSO THE COST WITH A COMMODIOUS WATER-COMMUNICATION

FROM ALTON	TO CHICAGO—Illinois River Improvem't.				TO BUFFALO—By Lake.			TO ALBANY—Erie Canal enlarged.			TO NEW YORK—Hudson River.			TOTAL.		AMOUNT SAVED.
	Cost per Ton per Mile.	Distance.	Cost per Bushel.	Charged per Bushel.	Cost per Ton per Mile.	Distance.	Cost per Bushel.	Charged per Bushel.	Cost per Ton per Mile.	Distance.	Cost per Bushel.	Charged per Bushel.	Cost per Ton per Mile.	Distance.	Cost per Bushel.	Charged per Bushel.	Cost.	Charged.	1. Over Summer Rates. 2. Over Winter do.
	Mills.	Miles.	Cts.	Cts.	Mills.	Miles.	Cts.	Cts.	Mills.	Miles.	Cts.		Mills.	Miles.	Cts.	Cts.†	Cts.	Cts.	Cts.
Corn	3¼	320	3.0	14‡	2	950	5.3	9.6	4	850‡	8.9	....	2¼	151	1.0	13.3	18.2	36.8	23.6
Wheat	"	"	3.2	15	"	"	5.7	10.6	"	"	4.2	....	"	"	1.0	15.4	14.2	41.0	26.8
Flour—bbls	"	"	11.2	35	"	"	19.0	43.0	"	"	14.0	....	"	"	8.7	70.0	47.9	148.0	100.0
BY RAIL.*	Cts.	Dis.	Cts.	Cts.	Cts.	Dis.	Cts.	Cts.	Cts.	Dis.	Cts.	Cts.	Cts.	Dis.	Cts.	Cts.	Cts.	Cts.	Cts.
Corn	1¼	256	8.9	14	1¼	518	17.9	27.5	1¼	380	13.3	20.0	1¼	144	5.0	7.0	47.6	69.4	56.2
Wheat	"	"	9.6	15	"	"	19.2	29.5	"	"	14.2	21.4	"	"	5.4	8.5	48.4	74.4	60.2
Flour	"	"	32.0	50	"	"	64.1	98½	"	"	47.5	71½	"	"	18.0	27.0	161.6	246.6	198.7

* For Six Months, during the suspension of Navigation. The cost is given by rail; but, in the last column, from the amount charged is deducted the cost by water.

† Amounts charged between Buffalo and New York included in the same column.

‡ Existing rates by rail.

To illustrate the immense saving to be effected on the cost of transportation, by the opening of these two enlarged avenues between the Mississippi and the sea-board, the Committee have compiled, with great care, the preceding table, which shows the ordinary freights by water, and by rail; and what would be the actual cost, with a commodious water-communication. The result is, as compared with the summer-rates, a saving of one-half; and, as compared with the winter-rates, a saving of two-thirds. These rates amount to a virtual prohibition, in ordinary times, on the shipment of corn, a hundred miles west of Lake Michigan.

It will thus be seen that the actual cost of transporting a bushel of corn from the Mississippi to the Atlantic, would be $13\frac{2}{10}$ cts.

To which add two elevator charges,	- - -	1 "
Tolls, say $1\frac{1}{2}$ cts. on each improvement,	- -	3 "
		$17\frac{2}{10}$ cts.

In the Chicago market in 1861, between June and December—the most active period of navigation—the price of corn vibrated between 20c and 24c. The cost of transportation from the Mississippi to Chicago was 16 cents; while the cost of gathering, shelling, and hauling to a station, would exceed the difference between the rate for transportation and the Chicago price; so that, if a person had been gratuitously offered a given amount of corn, to be gathered west of the Mississippi, on condition that he sent it to the Chicago market, he could not have afforded to accept the gift. That year, the freights paid by one corporation on more than 1,500,000 bushels, were $15\frac{18}{100}$ cents from Chicago to Buffalo, and $17\frac{66}{100}$ from Buffalo to New York, making, in all, $32\frac{84}{100}$ cents a bushel.

The subjoined statement shows the distances from some of the principal commercial points, to the mouth of the Illinois river; also, the cost of transporting a bushel of corn, *via* the improved water-communication:

PLACES.	Distance.	Freight to Illinois river.	Freight to New York.
	MILES.	CENTS.	CENTS.
Ft. Union	1,900	15 8–10	32 6-10
St. Joseph	508	4 2-10	21 4-10
Pittsburgh	1193	10 2-10	27 4-10
St. Paul	634	5 4-10	22 6-10
Davenport	319	2 7-10	19 9-10
New Orleans	1,320	12	29 2-10
Memphis	448	3 8-10	21
St. Louis	50	4-10	17 6-10

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From this table it will be seen what an immense scope of country will be made as accessible to New York, as Chicago and Milwaukee are at this time. The pioneer, upon the farthest verge of settlement in the vicinity of a navigable river, will find his crops as remunerative as those of the Illinois farmer a hundred miles from the Lakes.

The construction of these works would add untold millions to the national wealth, and communicate an impetus to agriculture and settlement, such as has not been paralleled even in the past history of this region.

NECESSITY OF ADDITIONAL OUTLETS.

The testimony of commercial men is concurrent, that the existing avenues of communication between the Lakes and the sea-board are inadequate to accommodate the traffic. For the past two years, the warehouses of the Lakes have been, during the active period of navigation, gorged with freight; the rolling-stock of the railways has been worked to its full capacity; every craft that could float upon the Lakes has been put under steam, or canvas; and the locks of the New York canal have proved inadequate to expeditiously pass the throng of boats, so that the voyage which ought to have been performed in nine days has been protracted to fourteen, and even twenty.

THE NEW YORK CANALS.

The Erie canal is the principal outlet through which the cereals of the North-West are conveyed to tide-water. Its dimensions are 70 feet wide and 7 deep, with locks 13 feet wide and 110 feet long, whose contents are about 13,800 cubic feet. The total length is 350.58 miles.

To show the extent to which its transporting capacity is taxed, your Committee beg leave to call attention to some facts contained in the Annual Report for 1862, of the Auditor of the Canal Board of the State of New York.

The total tonnage, its value, and the tolls collected on the canals, during 1862, were as follows:

Tons.	Value.	Tolls.
5,598,785	$208,234,331	$5,188,943.

The value of Western products, passing through the Erie and the Champlain canals to tide-water, has increased more than 100 per cent. within the past four years.

STATEMENT SHOWING THE EASTWARD-BOUND TRAFFIC OF THE ERIE AND CHAMPLAIN CANALS FOR FOUR YEARS ENDING 1862.

YEARS.	1859.	1860.	1861.	1862.
Tons.....	2,121,672	2,854,877	2,980,144	3,402,709
Value.....	$53,175,312	$78,798,617	$81,332,759	$111,176,568

The proportion between *Way* and *Through* traffic was about 1.8.

Turning to wheat, it will be found that less than one-tenth was local, while more than nine-tenths were drawn from the granaries of the North-West.

STATEMENT SHOWING THE MOVEMENT OF FLOUR THROUGH THE NEW YORK CANALS TO TIDE-WATER FOR FOUR YEARS ENDING 1862.

(*Wheat reduced to Flour.*)

YEAR.	Bbls. West.	Bbls. N. York.	Bbls. arriving at tide-water.
1859.....	2,210,620	.....	81,925,402
1860.....	4,344,387	737,321	5,081,708
1861.....	6,712,233	747,822	7,457,225
1862.....	7,516,397	843,685	8,360,082

The following is a statement of the total receipts of flour and corn—wheat being reduced to flour—at tide-water at New York, for 1862:

	Flour, barrels.	Corn, bushels.
By Canal.....	8,360,082	32,670,000
By Rail.....	2,617,923	450,000
TOTALS.....	10,978,005	33,120,000

In 1855, Mr. Jarvis, a distinguished engineer of New York, predicted that, in fifteen years, there would be an eastward movement of five millions of tons, the surplus products of the North-West. His prediction has been verified in seven years, or within one-half the time assigned.

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COST OF MOVING THE CROPS.

The amount of eastward-bound tonnage, including flour, conveyed over the three principal trunk lines of railway, in 1862, is shown in the following

STATEMENT FROM OFFICIAL REPORTS.

	Tons Eastward.
New York Central Railroad	616,177
New York and Erie Railroad	471,314
Pennsylvania Railroad	502,884
	1,590,375
To which add by Erie and Champlain Canals	3,402,709
TOTAL	4,993,084

Now, if all of these Western commodities were reduced to as compact a form as flour in barrels, and we were to suppose that thirty per cent., as in the case of the cereals, came from the west of Lake Michigan, and thirty per cent. from east of that lake, and that the freights charged were in proportion to those on flour, during the past season, they would amount to more than $56,400,000, as the cost of transferring the annual products of the North-West to the sea-board. To this should be added the freights on about $11,000,000, which found their way through Canada. With improved facilities, such as have been proposed, costing not to exceed $17,000,000, the saving in the movement of a single crop would amount to $30,000,000.

CAPACITY OF EXISTING OUTLETS.

It must be borne in mind that these great thoroughfares are fast approaching their full capacity for transportation. The capacity of the enlarged Erie canal was rated by McAlpine at seven million tons; but this was on the supposition that the enlarged locks would expeditiously pass the boats. Already the tonnage of the main line and its affluents has reached five and one-half millions, and the voyage, which ought to be performed in nine days, is protracted to fourteen, and even twenty.

To show that these views are not exaggerated, your Committee beg leave to refer to the statement of a highly respectable body of gentlemen, representing the Corn Exchange of New York, and the Board of Trade of Buffalo, submitted to the joint Committee on

Canals, of the New York Legislature, in April last, in which it is shown that the capacity of the locks has been reached the past season at 2,900,000 tons, and that there is an improbability of increasing the movement of tonnage by increasing the number of boats.

"The fact was shown that during considerable portions of the past three years, the Erie Canal had been taxed to its utmost capacity, not from deficiency in its main trunk, but from the impossibility of passing more boats through its locks; that while the channel of the canals was sufficient to be navigated by boats of six hundred tons burthen, the present locks could pass boats of about two hundred tons only; that while the channel of the canals in question was 70 by 7, the locks were but 97 feet by 18; that multiplying boats would not increase the transportation of tonnage, for the reason the limit of lockage had been already reached; that while the channel of the Erie and Oswego canals (with resources at command), were probably sufficient for the transportation of twenty millions of tons annually, the capacity of the present locks had been reached the present season at 2,900,000 tons.

"The improbability of increasing the movement of tonnage by increasing the number of boats (the locks remaining as now), was strikingly illustrated by tables furnished by the Auditor of the Canal Department, viz.: The lockages for the three most active months of 1860 (September, October, and November), were 15,420 at Frankfort (near Utica, which locks are double). For the year 1861, there were added 619 new boats (and the fact is notorious that, during such remunerative seasons as 1860, 1861 and 1862, few boats go out of existence, but are repaired and kept in use); yet the lockages for the same months, at the same place, for 1861, were but 15,585, showing an increase of 165. For the year 1862, were added 850 new boats to the number in use in 1861 (an increase of 1,469 over the number of boats in use in 1860), yet the lockages, by the most extraordinary exertions, by employing additional men, stationary power at the locks, abundance of water, and with singular exemption from breaks, were brought up to but 17,083 during the same period—an increase upon 1860 of 1,663; whereas, with adequate locks, the increased number of boats, for 1861 should have shown an increased lockage of 3,714, instead of but 165, and for the year 1862, a lockage of 8,994, instead of but 1,663. It should be borne in mind, while these lockages are actual, that the season of 1860 was cut short of 1861 and 1862 fully two weeks, by early ice; that in 1860, boats which cleared at Buffalo on the 17th of November, were frozen in west of Albany, while in 1861 and 1862, boats reached New York which cleared at Buffalo as late as November 26th; therefore, had canal navigation of 1860 remained uninterrupted by ice as late as was that of 1861 or 1862, there is every probability the lockages of 1860 would have been as great as those of 1861 and 1862. These lockages represent the number of trips made by boats during the three months under examination; therefore, the differences between the number of actual lockages proportional to the number of boats employed, compared with those of 1860, multiplied by the average tonnage of canal boats, unmistakably represent the loss of tonnage to the canals during that period.

"The inadequacy of the locks to the present channel of the canals was further

illustrated by the many miles of boats constantly accumulated at Rochester, waiting their turn at the Brighton lock, so called; and at Syracuse, at the first lock east of the junction of the Oswego canal, showing that while these boats had passed readily along the levels, they suffered detention only at the locks; thus, while ten to twelve days should be ample time to run a loaded boat from Buffalo to New York, eighteen to twenty-two are now required, consequently, a loss in time of nearly thirty-three per cent."

MULTIPLICATION OF RAILROADS AN INADEQUATE RELIEF.

It is not to be supposed that the trunk lines of railway can accommodate this growing commerce, for the reasons, first, that it will not bear this expensive transit; and second, that with their large passenger-business, and fast freight-lines, for the conveyance of merchandise and perishable articles, such as fresh meats, vegetables, etc., constituting the daily food of the great cities, they combined could not convey eastward an additional million of tons. The four great American outlets, then, (the New York canals, the New York Central, Erie, and Pennsylvania railways), have a capacity, at the highest estimate, to accommodate only about two and one-half additional millions of tons; and that, too, in view of an eastward-bound commerce through those channels, whose increase will at an early day reach the full limits of their capacity.

These facts demonstrate the absolute necessity of additional outlets—cheap, commodious and expeditious—for Western commodities, or production, up to the point already attained, must cease.

To relieve the existing glut in transportation, it has been proposed to construct additional railways.

When railroads were first introduced, it was supposed by many that they would supersede canals; and that expeditious transport, though at an increased cost, would counterbalance the cheapness of water-communication. Experience, however, has shown that this supposition was fallacious, and the relative advantages of these two modes of transport are now fully understood; and perhaps, there is no more striking example of this than in the State of New York, where the Central railroad and the Erie canal stretch coterminous through that State. The one is employed for the expeditious transportation of passengers, of perishable articles requiring immediate consumption, and of those to which an enhanced value has been communicated by the industry of man;

the other for those crude and bulky articles, which, in the absence of canals, would yield little or no return. In the one case, time becomes an element of value, for which the consumer is content to pay; in the other, it is a matter of slight importance.

The Committee have already shown that, under the existing rates of transportation, the export of corn is bounded by the western shore of Michigan; but with an improved water-communication, it would be extended to the farthest confines of settlement. Now, if the corn of the Western farmer, when charged with freights, through a water-communication, of twenty-five cents a bushel, between Chicago and New York, yields him no profit; if his wheat, charged also, with twenty-seven cents a bushel, is excluded from the markets of the world, except in case of public famine, what relief is it to him to construct additional modes of conveyance, on which the charges are 100 per cent. higher than by the existing routes?

EASTERN DEPENDENCE ON WESTERN BREAD-STUFFS.

The cereals of the North-West having found their way to New York, it is proper to trace their distribution;—to show how much is required to feed the inhabitants of the sea-board, and how much remains to form the basis of our foreign commerce.

By the census returns of 1860, it appears that New England raises wheat barely sufficient to feed her population three weeks; New York, six months; Pennsylvania is about self-sustaining; while Ohio yields a surplus of less than 3,000,000 bushels. In these States, during the last decade, there was a falling off in the amount of production to the extent of 6,500,000 bushels, while the increase in the North-West exceeded 55,000,000 bushels.

FOREIGN EXPORTATION.

After supplying the deficiencies of the sea-board States, the North-West has a surplus of bread-stuffs and provisions for exportation, which, in four years has increased in value from $38,300,000 to $122,650,000, which is—exclusive of specie—nearly 70 per cent. of our foreign exports. To this may be added $11,100,043, largely grain, which went out through Canada, making the aggregate over $133,750,000. This is shown by the annexed statement taken from the reports of the Secretary of the Treasury.

STATEMENT SHOWING THE VALUE OF THE DOMESTIC EXPORTS OF THE UNITED STATES, EXCLUDING SPECIE, FOR THE LAST FOUR YEARS.

ARTICLES.	YEAR ENDING JUNE 30.			
	1859.	1860.	1861.	1862.
Total Exports.....	$278,892,080	$316,242,423	$204,166,299	$181,875,988
Bread-stuffs and Provisions .	88,305,991	45,271,850	94,866,735	122,650,043
Domestic Exports to Canada (largely grain)	21,769,627	11,264,590	11,016,664	11,100,069
Foreign Exports.....	6,384,547	2,918,524	2,505,735	.....

These statistics show that the export of bread-stuffs and provisions in two years increased nearly 180 per cent. in value, and in three years, 220 per cent.

MATERIAL PROSPERITY OF NEW YORK.

This vast mass of vegetable and animal food, moving from the West to the East, with all the regularity of an ocean-current, has enriched the region along its route. It has been the main source of revenue to the New York canals and railways. It is the principal mine, from which New York city has derived her opulence and commercial greatness. The highlands of the Hudson are the gateways of a commerce, such as Venice, in her palmiest days, never dreamed of. She, not simply by her geographical position, but by the extended system of internal improvements, constructed by the State and public corporations, has been enabled to exact tribute upon nearly every article, whether produced or consumed by the North-West; upon the raw material, as well as the manufactured fabric; upon the proceeds of the outward voyage, as well as the return cargo. She has made herself the connecting link between two continents; the centre to which converge all the great lines of trade; the mart to receive and distribute the imports and exports of a continent.

The Committee might go further, and show how much more lucrative to New York has been her commerce in corn, than in cotton; how the one, from the time it started from the banks of

the Mississippi, until it arrived at the sea-board, scattered riches in its path; how the other, leaving a Gulf port, simply touched at New York, and then departed for some English mart, leaving behind no substantial benefit. The one is like a noble river, fertilizing the region through which it flows; the other as barren as the ocean on which it floats.

In view of these facts, public sentiment requires, and has a right to demand, that the State of New York shall hold this great thoroughfare—this connecting link between the East and the West—not for local aggrandizement, or State revenue, but as the trustee of the nation; and impose only such tolls on commerce as shall be required to preserve the integrity of the work, and ultimately pay the cost of construction.

FOREIGN DEMAND FOR THE SURPLUS OF THE NORTH-WEST.

The question of demand and supply remains to be considered; whether the European nations will require Western bread-stuffs and provisions only to a limited extent, and that, therefore, production, up to that point, must cease; or whether they will absorb our surplus, however great. In reply, it may be stated as a general truth, that there is not an instance in human history, so closely does population press on the means of sustenance, of a vast accumulation of food, beyond the wants of consumers.

The existing population of the European States is estimated at 280,000,000, of whom 150,000,000 are consumers of cereals to the amount of nearly 1,000,000,000 of bushels. The means to further production are limited by the obstacles interposed by nature, against which it is in vain for man to contend,—inhospitable mountains, barren wastes, and irreclaimable marshes. The most serious obstacle, therefore, to the increase of population will be the limits placed on the production of human food; but, through the equalizing effects of commerce, it is safe to presume that there will, at all times, exist an active demand for our surplus bread-stuffs, in exchange for the peculiar products of their soil, climate, and industry; and this demand will keep pace with the density of their population. Speculations, therefore, as to the probability of glutting the foreign market seem idle and misplaced.

The dependence of Great Britain upon foreign supplies each year becomes more apparent. In 1855, it amounted to 59.02 per cent., and in 1860, it rose to 88 per cent.

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STATEMENT, FROM OFFICIAL SOURCES, SHOWING THE AMOUNT OF WHEAT AND OTHER GRAIN, AND FLOUR, IMPORTED FROM THE UNITED STATES AND OTHER COUNTRIES INTO THE UNITED KINGDOM OF GREAT BRITAIN FOR FOUR YEARS ENDING 1861.

WHEAT.

	1858.	1859.	1860.	1861.
	Qrs.	Qrs.	Qrs.	Qrs.
United States.....	594,644	36,906	1,499,855	2,507,744
Other Countries.....	3,647,075	3,964,016	4,381,573	4,405,071
Total	4,241,719	4,000,922	5,880,958	6,912,815

GRAIN—OTHER KINDS.

	Qrs.	Qrs.	Qrs.	Qrs.
United States.	399,807	9,948	475,178	1,779,652
Other Countries.....	5,545,739	5,307,813	6,649,484	5,586,587
Total	5,945,546	5,317,761	7,125,662	7,366,239

GRAIN—ALL KINDS.

	Cwt.	Cwt.	Cwt.	Cwt.
United States.....	1,764,795	216,462	2,254,238	3,795,865
Other Countries.....	2,091,332	3,111,862	2,831,983	2,358,073
Total Cwt.	3,856,127	3,328,324	5,086,220	6,152,988
In Quarters.....	1,101,750	950,949	1,453,205	1,757,982

FLOUR.

	Qrs.	Qrs.	Qrs.	Qrs.
United States.....	1,098,871	98,752	2,143,451	3,591,991
Other Countries.....	4,244,598	4,853,119	5,190,713	5,078,806
Total	5,343,469	4,951,871	7,334,164	8,670,797

GRAIN AND MEAL.

	Qrs.	Qrs.	Qrs.	Qrs.
United States.....	1,500,481	109,275	2,624,005	5,398,176
Other Countries.....	9,793,224	10,161,499	11,873.971	10,696,738
Grand Total.....	11,293,705	10,270,774	14,497,976	16,094,914

The imports for 1862 were, according to the *London Gazette*, as follows:

Wheat, Quarters	9,542,359
Indian Corn, Quarters	2,751,261
Flour, Cwt	7,314,331

CONTINENTAL SOURCES OF SUPPLY.

The great European port for wheat-shipping is Dantzic, on the Baltic. The wheat is raised in Galicia and Poland, from five to seven hundred miles inland, and brought to the sea-board in flat-bottomed boats, suited to the navigation of rivers usually shoal, and abounding in rapids,—a mode of conveyance both tedious and expensive, costing from 6*s.* 6*d.* ($1.56), to 9*s.* 2*d.* ($2.20), per quarter to place it at Dantzic. These rates would be from 16 cents to 23 cents a bushel higher than the rates between the Mississippi and the Atlantic, with an improved navigation.

Another great source of supply is the Black Sea ports. The Dneister, the Dneiper, the Don and Volga are navigable, but abound in shoals and rapids. Wheat is sent to Odessa and Kertch by these streams; and by land, it is brought to market in waggons, often from a distance of many hundred miles.

The route between Odessa and Liverpool is circuitous, and consumes as much time as is required to cross the Atlantic. It is necessary that the voyage be performed in the winter season, in consequence of the heated waters of the Mediterranean; for it often happens that cargoes of wheat arriving in summer have to be removed with the pick-axe. The price on board at Odessa considerably exceeds 40*s.* per quarter, and the expense of importing is from 16*s.* to 18*s.*

In 1861, England imported grain of all kinds—

From Southern Russia	1,282,127 qrs.
From the Baltic	1,532,783 "
From British America, a considerable portion of which was derived from the United States	1,188,839 "
From the United States	5,398,176 "

From no other country did she derive a million quarters.

ABILITY TO COMPETE WITH FOREIGN MARKETS.

The average English price of wheat for the last quarter of a century, has been 54*s.* 6*d.* per imperial quarter of 70 lbs., which

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would be equivalent to $1.42 for an American bushel. The continental price is 6*s.* 6*d.* less, that being the cost of transportation to England, per quarter, which, on an American bushel, would equal $16\frac{7}{10}$ cents.

Now, with an improved water-communication, the cost of shipping a bushel of wheat from the Mississippi to New York, and thence to Liverpool, would be—

	Cents.
By Canals, Lakes and Rivers	14.2
Tolls, say	3.0
Three Elevator-charges	1.5
Insurance and Commissions	1.7
Ocean, 3,150 miles, at $5 per ton	15.0
Cost to Liverpool	35.4
Where it would be worth	142.0
Netting to the Shipper	106.6
To which add Premium on Exchange	10.7
Making	$1.17.3

Which would be a discrimination of only 8 cents against the American producer, as compared with the continental price, and would make the average price of wheat $1.06 on the banks of the Mississippi; $1.00 at St. Paul; and 80 cents at Fort Union.

When we consider the character of the wheat-growing region of the North-West, the cheapness of the lands, the fertility of the soil, and the facility with which it is cultivated,—that all of the processes of sowing, reaping, harvesting, binding, threshing and winnowing, are done expeditiously by machinery, the American farmer may successfully enter the lists of European competition, and contend for a monopoly of the provision-market of the world. He need not depend on any accidental deficiency in the crops of Europe, but rely on a nearly unvarying market for all his surplus crops abroad. This traffic in human food will prove a greater power than ever cotton was, and give us a strength, and position among the nations of the earth, far above what we have already attained.

The Committee have thus imperfectly sketched the great features of this commerce; but, in traversing a field so vast, have been compelled to leave out many subordinate details. The facts adduced show how essential the construction of these works is to the future prosperity of the North-West, and to the whole country.

IMPORTANCE OF A SHIP-CANAL.

The Committee have thus adverted to the magnitude of the products of the North-West, the burdens to which they are subjected in their passage to the sea-board, and the extent to which they enter into our external commerce, and contribute to the national wealth. While almost every other industrial interest of the country,—the coal and iron of Pennsylvania, the manufacturing of New England, and the salt of New York,—is protected by discriminating duties of thirty per cent., we search the statute-book in vain for any legislation, which tends directly in aid of agriculture—the main-spring of all our prosperity.

It is proposed to consider this question in three aspects, viz.:

I. NATIONAL,

As tending to bind together different parts of the Union, and uniting the people by the ties of mutual interests and social connections; and as developing the resources of distant regions, and thereby contributing to the national greatness.

II. COMMERCIAL,

As affording a cheap and expeditious communication between regions widely separated, and as admitting of a free interchange of the products of different climes, and of different industries, giving activity to labor, and a profitable return to capital.

III. MILITARY,

As connected with the defense of the country, using such a communication as a means of transferring gun-boats from one system of waters to another, and of rapidly concentrating them at points widely asunder, thus making a small armament as efficient as a large one.

NATIONAL ASPECTS.

CONSTITUTIONAL POWER OF CONGRESS.

The Constitution empowers Congress to do all necessary acts to provide for the COMMON DEFENSE, and to promote the GENERAL WELFARE.

Mr. Jefferson, in 1801, on assuming the duties of the Presidency, announced as among the leading objects of the Constitution—"the encouragement of agriculture, and of commerce, its handmaid."

Mr. Madison, the Father of the Constitution, in 1809, when called to the same exalted position, uttered a similar declaration,—"to promote by authorized means, improvements friendly to agriculture, to manufactures, and to *external* and *internal* commerce;" and, in 1816, he called the attention of Congress to the importance of devising a comprehensive scheme of roads and canals, "such as shall have the effect of drawing more closely together, every part in the common stock of national prosperity."

As far back as 1807, Albert Gallatin, one of the most far-seeing and sagacious of our statesmen, as Secretary of the Treasury, submitted an elaborate report to the Senate on the importance of constructing roads and canals by the Government, as a means of affording speedy and easy communication between remote parts of the country, to facilitate commercial and personal intercourse, and to unite the people by a still more intimate community of interests. In that report he states, "No other single power of government can more effectually tend to strengthen and perpetuate that union, which secures external independence, domestic peace, and internal liberty."

There has, from the adoption of the Constitution, existed a class of men who viewed with extreme distrust every exercise of power on the part of the Government, for the promotion of the general welfare. All schemes to facilitate communication between remote territories, to remove obstructions in the pathway of commerce, or to develop particular branches of industry, have been pronounced unconstitutional; while, on the other hand, all attempts to fortify the the approaches to our territory, to build up and equip an efficient navy, and to maintain a well-disciplined army, have been denounced as a wasteful expenditure of money. But the events of the last two years have taught us a far different lesson; and that ours is not an exception to the history of other nations who have preserved their integrity only by the strong arm of power.

"To govern an extended empire," using the words of Gibbon, with a slight alteration, "requires a refined system of policy; in the centre, a strong power, prompt in action and rich in resources; a swift and easy communication with the extreme parts; fortifications to check the first effort of rebellion; a regular administration to protect and punish; and a well-disciplined army to inspire fear, without producing discontent and despair."

THIS POWER REPEATEDLY EXERCISED.

This power has been repeatedly exercised by Congress;—for example, in the construction of the National Road, which was the first commodious channel of communication between the Valley of the Mississippi and the sea-board; in subscriptions to various canals, —the Louisville and Portland, the Delaware and Chesapeake, the Potomac and Ohio, and the Dismal Swamp canals; and more recently in the munificent grant of bonds and lands in aid of the construction of the Pacific railroad;—a measure called for by every consideration of national unity, internal commerce, and military defense.

NATIONALITY OF THIS COMMERCE.

The commerce which floats upon a river like the Mississippi, draining half a continent; or upon the Great Lakes, whose shore-lines are longer than those of the sea-board States; or is poured through an artificial channel like the New York canal, is as much national as that which is wafted over the Atlantic. When it is shown that eight-ninths of the cereals are derived, not from a single State, but from a group of States; and are moving, not to a local market, but to the markets of the world; furnishing to the navigating interest the outward-bound freight as well as the return cargo, and conferring a direct benefit on the national finances; and when the proceeds of these products are traced through all the ramifications of trade, it is evident that it is not simply the citizen of one State, but the Western producer, the consumer at home and abroad, the navigator, the importer, the consumer of foreign fabrics, and the Government itself, all have a direct interest in the result.

It is a measure whose benefits are not to be circumscribed by State lines, but one which connects three distinct systems of navigation, and renders them available for external and internal commerce, for national unity, and military defense.

Every one is aware how largely the topographical features of a country influence its inhabitants in their social habits, their modes

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of thought, and business pursuits. The words of Cowper contain a fund of political philosophy:

> "Lands intersected by a narrow frith
> Abhor each other. Mountains interposed
> Make enemies of nations, who had else,
> Like kindred drops, been mingled into one."

But bridge these friths, tunnel these mountains, making them the great highways of commerce, and you unite the people by the ties of a common interest, which they will consent to sever only under the most pressing necessity.

HOW TO CONDUCT A LONG WAR.

The expenses of the Great Rebellion, reaching not less than $500,000,000 a year, must be levied on our national resources. It is the price which must be paid for the preservation of our national unity. Taxes are assessed upon almost every article that contributes to the wants, or the conveniences of the people; but, however multifarious the tax-schedule, the revenue is derived from two sources alone:—the wages of labor, and the interest of capital. The ability of the people to sustain taxation depends on the reward given to labor, and the profitable employment of capital. The fact, therefore, that the national resources are taxed to so great an extent, for the purpose of sustaining the war, so far from being an argument against appropriations for the objects of internal commerce, is the strongest reason why they should be made. The war must be made to sustain the war.

The most hopeful feature in this contest is the general prosperity of the North, and the general paralysis of the South. In the one section, commerce is active, labor in demand, and wages are almost unexampled; property is constantly advancing in value, immigration has not fallen off, population is increasing, while the operatives in every branch of industry—agriculture, manufactures and mining—are unceasingly occupied. On the other hand, the South exhibits a forlorn aspect. Over wide expanses of territory desolation reigns supreme. With the mouth of the great mercantile river, the Mississippi, in the possession of the Government, and their principal ports blockaded, they are thus cut off from the markets of the world. Their cotton plantations have almost ceased to be cultivated; and while the demand for that staple abroad is unprecedented, at home it is almost valueless. A famine threatens the land; and tumultuous crowds of women parade the streets of their

capital crying aloud for bread. Villages are depopulated, refugees flock to the lines of the army demanding protection, and food commands almost fabulous prices.

From the example of Netherlands, in her terrible but successful struggle for nationality, the North can derive a salutary lesson. According to the historian Motley, a war had been raging for a quarter of a century without any interruption, population increased, property rapidly advanced in value, and labor was in active demand. Famine was impossible to a State which commanded the ocean. No corn grew in Holland and Zeeland, but their ports were the granary of the world; and in one month eight-hundred vessels left their havens for Eastern ports alone. While the seaports rapidly increased in importance, the interior towns advanced as steadily. The woolen manufacture, the tapestry, the embroideries of Gelderland, and Friesland, and Overyssel, became as famous as had been those of Tournay, Ypres, Brussels, and Valenciennes. The immigration from other countries was very great; it was difficult to obtain lodgings in the principal cities; new houses, new streets, new towns, rose every day; and when the English embassadors arrived in the Provinces, they were singularly impressed by the opulence and magnificence which surrounded them. The single province of Holland furnished regularly for war expenses alone, 2,000,000 florins a year, besides other extraordinary grants, which seemed only to make it more elastic. A contemporary remarked that "coming generations may see the fortifications erected at that epoch in the cities, the costly and magnificent havens, the docks, the great extension of the cities; *for truly the war has become a great benediction to the inhabitants.*"

By the cultivation of such arts,—domestic industry and external commerce,—they were enabled to carry on a war for eighty years, and bring it to a triumphant issue.

In the midst of a desolating war, Louis XIV completed the canal at Languedoc, connecting the Mediterranean with the Atlantic, which reflected more glory on his reign than all his military conquests.

Napoleon, while combatting with all Europe, devised and executed schemes of national importance, which conferred imperishable benefits on France, and which went far to efface the effects of the ravages of war.

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COMMERCIAL ASPECTS.

There is no measure which would so materially benefit our external and internal commerce, as the creation of a ship-canal between the three great systems of navigation in North America,—the Mississippi, the St. Lawrence, and the Atlantic. The Illinois valley, with a summit-level of only eight feet, and with Lake Michigan as an unfailing reservoir, affords an entirely feasible and practicable route; and besides, what is a remarkable fact in the physical geography of the region, its mouth is about the central point of convergence of the three great basins of the Upper Mississippi, with a drainage area of 1,244,000 square miles,—the heart of a great continental system, of which the navigable and unnavigable rivers are the arteries and veins.

Another striking geographical fact is that, taking Memphis and Liverpool as initial points, this route is found to be in a nearly direct line along the great circle of the earth, and is, therefore, the one in which the products of the Great Valley would naturally move to the markets of the world. The New York canal is constructed through a natural depression of the Alleghanies, the most feasible to be found throughout their range from Canada to Alabama. The North-West dates its prosperity from the time of the construction of this work, and its enlargement would form an epoch in a new career of prosperity, compared with which, the past would sink into insignificance.

The facts which have been collated by the Committee show that the products of the North-West feed to a large extent the inhabitants of the sea-board States, and at the same time furnish the bulk of cargoes to our commercial marine; that, exclusive of specie, they constitute in value about 70 per cent. of all of our domestic exports, and in that proportion, contribute to the customs-revenue, in duty-paying articles for which they are exchanged; that, while under the existing tariff, almost every other branch of industry is protected to the extent of 30 per cent., there has been no legislation in aid of bread-stuffs and provisions; that the connecting of these three systems of navigation, under the constitutional power of Congress, by a ship-canal, while its cost would not exceed $17,000,000, would result in a saving of $30,000,000 in the movement of the yearly crops, to be shared alike by the producer and consumer; that its practical effect would be to bring the lands on the outer verge of settlement 2,000 miles nearer the sea-board for

all the purposes of market; that products, like corn, now almost worthless for exportation, would be in active demand; that under such a stimulus, the value of the public domain would be greatly enhanced, immigration become active, settlement extended, and our foreign commerce swollen to an unprecedented extent; and finally, that it would illustrate the great historical truth, that the only method of carrying on a protracted war is to increase the productive industry of the nation.

MILITARY ASPECTS.

Great Britain occupies the northern portion of the continent, with a territory coterminous with our own, stretching from the Atlantic to the Pacific. She has constructed a series of short canals around the rapids of the St. Lawrence, with locks 45 feet wide and 200 feet long, and 8 feet deep; and has connected lakes Erie and Ontario by the Welland canal, with locks 26 feet wide, 150 long, and 11 feet deep, and capable of ready enlargement. She has, also, constructed the Rideau canal, professedly as a military work, by an interior route, between Montreal and Kingston, with locks 33 feet wide and 142 long; and although the channel is only 5½ feet deep, yet it is capable of passing a dangerous vessel, when buoyed up by lighters.

She has a formidable fortress and depot of military and naval stores at Kingston, on Lake Ontario; another at Malden, at the mouth of the Detroit river; and a third at Penetanguishene on Georgian Bay; besides forts more or less impregnable at Toronto, Niagara, Port Stanley, Windsor, and Port Sarnia. Most of these points are intersected by railways, by which a large force can be rapidly concentrated.

To oppose these formidable preparations, we have a few dismantled forts, which a half-hour's cannonading with improved ordnance would batter down, and which, from their weakness, would invite, rather than deter attack; no lines of water-communication by which a war-vessel, larger than a canal-boat can be thrown into the lakes; no naval or military depots; nothing but a single steamer of 100 tons burden, mounting a single 18-pounder for aggressive or defensive purposes; nor can the number, under the treaty stipulations of 1817, be increased beyond one more on the Upper Lakes, one on Lake Ontario, and one on Lake Champlain.

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The richly-laden fleets, bearing the commerce of half the country sea-ward, and the populous cities and towns along the borders of the lakes, are at the mercy of the invader. Not a gun is mounted for their protection, nor is there a harbor of refuge four miles inland.

It may be a startling fact, but it is nevertheless true, that a single battery planted on the Virginian side of the Ohio river below Pittsburgh, and a single gun-boat anchored near the south shore of Lake Erie, have the power to sever the great arteries of communication between the East and the West. A slight interruption of the calm regularity in the flow of bread-stuffs eastward, would cause a consternation as great as any disaster to our arms. We may repose in fancied security; but should such a disaster occur, succeeding generations would not fail to brand as imbecile, the statesmen of this day, who neglected to defend the nation in its most vulnerable point.

POSSIBILITY OF A RUPTURE.

A year has scarcely elapsed since England, in contemplation of the possibility of a rupture with the United States, began to throw troops and munitions of war into the principal stragetic points; an extended system of fortifications was projected, the local militia was enrolled and equipped—the whole placed under the command of one of the heroes of the Crimean war,—and the aristocratic organ of the nation, the *London Times*, declared that, with the opening of the navigation of the St. Lawrence, England would throw into the Lakes such a fleet of gun-boats as would give her the command of those waters.

It will be recollected, too, that Mr. Seward, as Secretary of State, addressed a letter to the Governors of the States bordering on the Lakes, calling upon them, in the interim of Congress, to take steps to fortify the principal points of approach. It is thus apparent, that both governments regarded a rupture as imminent, and took steps to prepare for it. It is equally evident, that both regarded the Lake-frontier as the theatre of military operations, and commenced a concentration of the *materiel* of war at the principal stragetic points.

While the happening of such an event is greatly to be deplored, still it must be confessed that there are yet irritating questions, which may require to be settled by the arbitrament of war. The

fitting out in her ports of vessels to prey upon our commerce, with the tacit knowledge and assent of that Government, cannot but be regarded by us, as it has been by her, a violation of public faith and international comity.

As if in anticipation of hostilities, we again hear of a large force being thrown into Canada, and of the shipment of military and naval stores.

LAKE DEFENSES.

The question recurs, what would be the cheapest and most effectual method of defending the Lakes, and enabling us to assert our supremacy over them in case of war?

The introduction of iron-clad vessels has effected a revolution in naval warfare, and no maritime nation would at this day confine its defenses to stationary fortifications.

The existing forts on the American side, even if furnished with the most approved guns, would probably prove ineffectual to prevent the passage of iron-clads; and besides, stationary fortifications are unfitted for aggressive purposes.

Of the lake craft, many might be extemporized into war-vessels; but the bulk of them when covered with armor and laden with stores, would be incapable of entering the harbors.

The question of lake-defenses was referred to the Naval Committee of the Thirty-Seventh Congress, who, through Mr. F. A. Conklin, submitted a report which appears to have been written in ignorance of the great hydrographical features of the Lakes, and contains recommendations utterly impracticable.

With harbors along the Lakes admitting vessels of but twelve-feet draft, a fact which seems to have been overlooked by the Committee, they gravely state:

"Vessels of such a class as could traverse the enlarged canals, would be unequal to a contest with the Roanoke of our own navy, and still more with the La Gloire of the French, or the Azincourt or the Minotaur of the British navy. They ought not to be built for ocean warfare, nor for warfare on the lakes, unless the Government shall be constrained, when the occasion arises, to adopt the lock of a canal as the standard of a man-of-war, and to gauge a contest with England accordingly."

Such a recommendation hardly deserves a passing comment, when it is stated that a vessel of the draft of any of those enumerated—twenty-five feet or more—would be excluded from every lake-harbor, and would be incapable of passing through the straits connecting the respective lakes. If such a policy were adopted, each lake would require its separate fleet, and would be incapable of co-operation.

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But, it has been said that the defense of the Lakes is to be made at the mouth of the St. Lawrence. This plan may be acceptable to those residing on the sea-board, and who have no immediate interest in the result; but to those occupying the cities upon the shores, and owning the commerce which floats upon the waters, of the Great Lakes, this plan is far from satisfactory; they will hardly rest secure in trusting to a defense to be made at a distance of two thousand miles. The burning of Buffalo and Black Rock has not yet faded from the recollection of our oldest inhabitants. They have the right, by reason of numbers and the magnitude of the interests involved, to require such an armament as shall enable the Government, at once, in the event of war, to assert and maintain its supremacy on the Lakes. The representatives of the North-West in Congress have at all times cheerfully voted appropriations for fortifications, for ships, arsenals and naval depots, to protect *Ocean* commerce; and now they have a right to demand, as a matter of justice and reciprocal good feeling, that appropriations shall be made for *Lake* commerce,—a commerce wafted on waters whose shore-lines far exceed those of the Atlantic, and whose value far exceeds that of the external commerce of the country. They fail to perceive why one is sectional and the other national,—why one shore, laved by salt water, should bristle with masts and be dotted with forts; and the other, laved by fresh water, should be left defenseless. The West has reason to believe that, when this question is presented, in all of its proportions, the East will return a cordial and emphatic response.

The Congress, up to July, 1861, had appropriated for defense against external aggression, more than nineteen and one-half millions of dollars to the New England States; and more than twenty-nine and one-half millions to the loyal Middle States; while the amount appropriated to the Food-producing States reached a little more than six millions. In the first session of the Thirty-Seventh Congress, 1862, the appropriations for forts, ships, etc., reached fifty millions, not one million of which was given to the North-West.

For the defense of the Lakes is required an iron-clad fleet to co-operate with stationary fortifications. In what manner shall they be introduced? The Naval Committee, with Mr. Conklin as their exponent, have suggested two plans:

1. By constructing a navy-yard on the borders of some one of the inland sheets of water tributary to the lakes.

2. By constructing vessels in parts, and transporting them to the places required ready to be set up.

With regard to the first proposition it may be stated, that, while the Naval Committee admit that it would be an infringement of the treaty-stipulations of 1817 to construct war-vessels on the margin of the Great Lakes, it is difficult to comprehend by what process of reasoning it becomes no infringement to construct them on an inland sheet of water, directly communicating with the Lakes, to be sent down whenever their services shall be required. We apprehend that the British Minister Resident would remonstrate with the Secretary of State, long before the first keel was laid. On the other hand, in enlarging these canals, we are but exercising a right which has been freely conceded to Great Britain.

With regard to the second proposition, it may be stated that, to prepare the materials for constructing two distinct fleets, one for the Upper Lakes and one for the Lower, to be put up whenever the necessity may arise, and to transport them to these waters from parts far remote, would be far more expensive than the cost of opening these lines of internal communication; and besides, the usefulness of these fleets would be restricted solely to these waters.

A third plan has been proposed, and that is to make use of the enlarged canals to transfer our iron-clads from one system of navigation to another, and thus save the expense of maintaining distinct sets of fleets. The Naval Committee, through Mr. F. A. Conklin, maintain that, so far as relates to the enlarged New York canal, it is impracticable. We deem the testimony of ERICSSON, the conceptions of whose inventive skill have saved us from national humiliation, and whose fame will live through the ages with undimmed lustre, of far more importance than any crudely-expressed opinions of this Committee.

"AN IMPREGNABLE WAR-VESSEL OF 25 FEET WIDE, AND 200 LONG, WITH A SHOT-PROOF TURRET, CARRYING A GUN OF 15-INCH CALIBRE, WITH A BALL OF 450 POUNDS, AND CAPABLE OF DESTROYING ANY HOSTILE VESSEL THAT CAN BE PUT ON THE LAKES, WILL DRAW, WITHOUT AMMUNITION, COAL, OR STORES, BUT 6 FEET 6 INCHES OF WATER; AND CONSEQUENTLY, WILL NEED ONLY A CANAL WIDE AND DEEP ENOUGH TO FLOAT A VESSEL OF THOSE DIMENSIONS, WITH LOCKS OF SUFFICIENT SIZE TO PASS IT."

The cost of these enlarged communications, according to the estimates of engineers of the highest capacity and integrity, will not exceed $17,000,000; and yet the Naval Committee, through Mr. F. A. Conklin, without furnishing the country with one iota of proof to impeach the correctness of these estimates, gravely assert

that the cost will exceed $45,000,000. With a like facility of pen, these estimates might have been swollen to $100,000,000, if thereby a purpose were to be subserved.

The effects of this rebellion will survive for a generation; and to insure the regular administration of the laws over a portion of the country, will require the maintenance of a force sufficient to put down every display of insubordination. It will be necessary for the Government to control all of the great lines of communication. For this purpose, no means would be so effectual as a class of iron-clad gun-boats drawing from 6 feet to 12 feet of water, and capable of navigating our rivers and entering our harbors. A class of the draft last named, by the aid of lighters, could pass through the Illinois and Michigan canal, from the Mississippi to the Lakes, and *vice versa*, and thus be made available, either to suppress insurrection, or repel invasion.

It may be said that fleets adapted to river-navigation are not adapted to lake-navigation; to this it may be replied that they are well adapted to the defense of the straits, which are the most important lines to be guarded. There are, according to the statement of Admiral Porter, not less than 60 vessels in the United States navy capable of passing the proposed locks of the Illinois and Michigan canal, and others are building of like capacity.

Your Committee, therefore, are of the opinion that the cheapest and most effectual method of lake-defense is, not by the establishment of naval depots, or the building of fleets on these waters, both of which would be construed as a violation of the treaty-stipulations of 1817; nor by the erection of an extended system of land fortifications; but by opening such a line of internal communication that gun-boats may readily be passed from one system of navigation to another, and be made available for defense, alike in the harbors of the Atlantic, on the Lakes, and on the navigable waters of the Mississippi. With these two links in the chain of communication completed, a vessel could be passed, by an internal route, from New Orleans to Chicago, Buffalo, New York, Trenton, Philadelphia, Baltimore, Annapolis, Washington, Norfolk, Richmond, Newbern, and Beaufort, making a distance of 4,300 miles; besides rendering accessible the whole navigable system of the Mississippi and the Lakes. It would, therefore, become a matter of little moment, whether a vessel were built at Brooklyn, Annapolis, Washington, or Philadelphia; or at Pittsburgh, Cincinnati, or St. Louis; the mechanical skill of every section of the country could

be called into requisition, and the vessel completed, with little inconvenience, be transferred to the most distant waters.

WAYS AND MEANS FOR CONSTRUCTION.

The bill introduced into the last Congress proposed, for the construction of the Illinois communication, the appropriation of the bonds of the Government to the extent of about thirteen and one-half millions of dollars, redeemable in twenty years, and bearing six per cent. interest per annum, with the pledge of the tolls for the payment of accruing interest, and the ultimate payment of principal, of which the traffic would afford an ample guaranty. The issue of these bonds, thus secured, would subserve all the purposes of a direct appropriation, and would command the confidence of capitalists at a time, when more than ever before there was redundant capital seeking investment. It would not involve the necessity of raising a dollar by taxation.

If it be asked, why does not the State of Illinois execute the work, or confide its execution to a chartered company; it may be said in reply, that the State cannot enter upon the work without first changing her organic law, which would require two or three years to accomplish; and while she is agreed on the policy of surrendering this route to the General Government, to be used as a national highway, it is doubtful whether a like unanimity would prevail with regard to the State taking such action, even if constitutional impediments were not in the way. As to the second inquiry, the State, through her Constitutional Convention, has indicated her policy, in no event to surrender this work to a chartered company.

If it be said that, however meritorious this work, the Government is not in a condition to incur fresh obligations, it may be replied that no debt is formidable, based on a great improvement, whose revenues are ample to meet the accruing interest, and at the same time to create a sinking-fund for the ultimate extinguishment of the principal. The railway debt of the United States exceeds eleven-hundred millions of dollars; and yet the only inquiry of the capitalist, dealing in this class of securities, is, what will be the net earnings? The consolidated debt of Great Britain is so enormous that it will never be paid; yet, based as it is on the opulence of the Empire, it is regarded, the world over, as the emblem of financial stability.

So far as relates to the New York portion of the enterprise, it

may be stated that the Legislature of that State, by an act passed April 22, 1862, authorized the enlargement of one tier of locks on the Erie and Oswego canals, provided the expense thereof was paid by the United States; in consideration whereof the last named party should have the perpetual right of passage through said canals, "free from toll, or charge, for its vessels of war, boats, gun-boats, transports, troops, supplies, or munitions of war."

In conclusion, your Committee would state, that this is an enterprise which, in whatever light it is viewed, ought to commend itself to the favorable consideration of the country. In its lowest sense, as a mere pecuniary investment, the bonds of the United States, based on the tolls of the canal, would command the confidence of capitalists. As a commercial scheme, it would enhance the value of the public lands, and communicate a stimulus to agriculture, which would be felt to the farthest verge of cultivation. It would cheapen the price of our daily food, and swell to a vast extent our foreign commerce. As a national measure, it would establish, between the East and the West, closer commercial and political affiliations, and forge a chain which no convulsion could sever; while as a military system, it would prove the cheapest mode of fortifying a long line of frontier, and of controlling an immense inland navigation. In no other way, in the opinion of the Committee, can Congress so effectually, in the language of the Constitution, "PROVIDE FOR THE COMMON DEFENSE," or "PROMOTE THE GENERAL WELFARE."

J. W. FOSTER,
CHAIRMAN.
GEO. F. RUMSEY,
CHARLES WALKER,
WM. McKINDLEY,
R. McCHESNEY,
WM. BROSS,
JOHN B. PRESTON,
Committee.